The Examiner's primary reference is Ford, et al., U.S. Patent No. 6,497,870. This reference has been discussed previously. To reiterate, Ford teaches a 177 amino acid protein, interleukin-1 ("IL-1"). The currently claimed peptides "consist of from 10-12 amino acids."

Hence, it is not seen how "Ford et al. teach a polypeptide comprised of same amino acid residues and having same functional relationship as is instantly claimed." Ford encompasses peptides having 95% or higher sequence identity to SEQ ID NO: 1. If 5% of SEQ ID NO: 1 were not present, the peptide would still be over 160 amino acids long. Nothing within Ford suggests truncation to peptides of the claimed size, let alone with the amino acid sequences that are recited.

The Hancock patent, added by the Examiner, teaches a number of longer peptides. The Examiner relies upon the peptide of SEQ ID NO: 15, which the Examiner admits is 20 amino acids long. The Examiner apparently confuses 'comprises," which is NOT set forth in the claim with "consists of" which is. The Examiner's entire argument is based upon this misconception. Indeed, as the Examiner admits the Hancock references teaches polypeptides "of at least 20-30 amino acids length."

Even if there were some suggestion to combine the anti-microbial peptides of Hancock with the interleukin-1 of Ford, one would have a suggestion that the peptides need to be at least 20 amino acids long, rather than be no longer than 12 amino acids.

To the same end, the Aley peptides are approximately 30 amino acids long, and bear no functional relationship to IL-1.

The sum of the teachings of the references lack any suggestion to modify the primary reference Ford. The secondary references suggest that peptides 2-3 times longer than the length of the peptide claimed are required for activity. This falls substantially

shorts of the required *prima facie* case of obviousness that the Examiner must present. As such, the rejection should be withdrawn.

Regarding the Examiner's lack of enablement rejection, this misstates the law.

The Examiner attempts to place his own definition of what "antimicrobial" means, based upon extrinsic source material. This is legal error.

The Court of Appeals for the Federal Circuit has provided clear guidance that claim interpretation begins with the claims, the specification, and the prosecution history. Phillips v. AWH Corp., 75 USPQ 1321, 1327-1331 (Fed. Cir. 2005); also see, Vitronics Corp. v. Conceptronic Inc., 39 USPQ 2d 1573, 1576-77 (Fed Cir. 1996).

Phillips has warned of and criticized reliance on the significance of dictionaries and treatises as primary source material for claim interpretation. See Phillips at 1317-1318; and 1332.

By totally ignoring applicants own perfectly acceptable definitions, the Examiner has committed legal error. In any event, how can one conclude that damaging a microbe's membrane does not constitute anti-microbial activity? As figures 3A-3C show, membrane damage results in calcein leakage. This is because the membranes were damaged, and the cells impaired. Applicants again refer to Example 3 for support.

The Examiner has provided no argument to support his position that the claims are not enabled, other than an improper, alternative definition of a term that is used and defined properly in the specification. In re Marzocchi, 169 USPQ 367, 369 (CCPA 1979), places the burden of proving lack of enablement on the Examiner. The claims are presumed enabled in the absence of such a showing. Statements made in a specification supporting claims are presumed to be correct, with the Examiner bearing the burden to

prove otherwise. No showing has been made. As such a *prima facie* case has not been made out, and the rejection must be withdrawn.

Allowance of the application is believed to be proper and is urged.

* * *

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0624, under Order No. NY-FAPESP 203-US (10026221), which the undersigned is authorized to draw.

Dated: April 1, 2009

Respectfully submitted,

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